Unified Build 3.0.1.6GP2
Change Page Replacement Guide

Documentation updates for the Unified Build UBPATCH 3.0.1.6GP2 release are being issued in the form of change pages for the *Unified Build 3.0.1.6G System Administrator's Guide*.

Unified Build System Administrator's Guide

To update the existing *Unified Build 3.0.1.6G System Administrator's Guide*, remove pages/chapters as shown below and substitute the new pages/chapters as indicated. (Note: New pages are dated 11/22/96 and are marked Change 2.)

Remove (from old document)	**Replace With (Change 2)**
List of Effective Pages	List of Effective Pages
Pages i through iv (Table of Contents)	Pages i through iv (Table of Contents)
Pages 1 through 54d	Pages 1 through 54f

Once you have completed the insertion of this change, ensure that you update the Change Record Sheet in this guide to reflect the inserted Change's appropriate date, software level, and the date the Change was entered. Then initial/sign the Change Record Sheet.

List Of Effective Pages

PAGE NUMBER	SOFTWARE VERSION NUMBER (DATE)
List of Effective Pages	UB3.0.1.6G Change 2 (11/22/96)
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Chapter 11	UB3.0.1.5G (8/16/96)
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FOREWORD

The *Unified Build System Administrator's Guide* describes the setup and maintenance of Unified Build (UB) and also provides information about UB security administration in the GENSER and SCI environments.

This guide is divided into two sections: SYSADMIN Options and SECMAN Options. Each main section contains several subsections describing specific menu functions available under the specified user login.

SYSADMIN Options:

SECMAN Options:

SYSADMIN OPTIONS

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CHAPTER 1: SYSADMIN INTRODUCTION

The SYSADMIN portion of this guide describes the setup and maintenance UB. Unified Build was derived from the Joint Operational Tactical System (JOTS)– a command and control system originally designed for the afloat Navy.

The following chapters describe menus and options available on the menu bar under the SYSADMIN login.

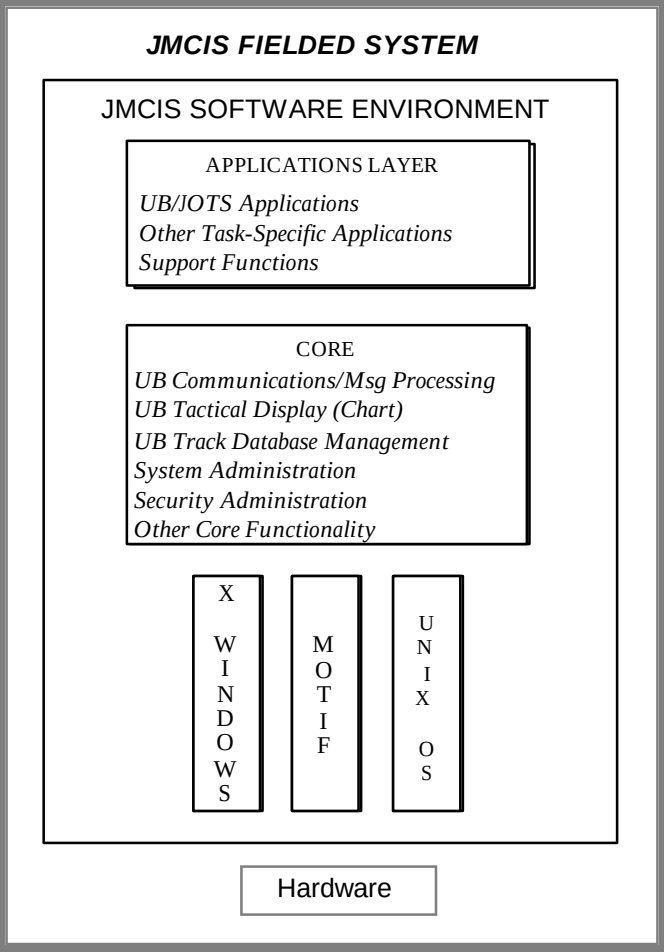

Figure 1-1 Core Components of JMCIS

1.1.1 INSTALLATION CONFIGURATIONS

When JMCIS operates in standalone configuration, all functions are performed on a single workstation. The standalone configuration is typically used for intelligence applications for which security restrictions, such as discretionary access controls, may preclude the typical network configuration.

When multiple workstations are configured on a local area network (LAN), typical system configuration consists of one workstation serving as communications

processor (CP) and track database manager and all others acting as clients. The server provides the shared tactical picture for the LAN.

Workstations on a LAN may also be configured as a combination of work groups and standalone machines. Each JMCIS work group operates as a separate LAN, with one workstation in the group acting as server and all others acting as clients.

For details on installation configuration, see Chapter 4, *System Installation*.

1.1.2 JMCIS FUNCTIONALITY

The functions described in this document may not correspond with those available on a particular workstation. Factors that determine the availability of functions include:

- LAN classification
- workstation classification
- user's account group, role, and classification

1.2 ADDITIONAL SOURCES OF INFORMATION

JMCIS Security Manager's Guide– explains security administration functions, including user accounts and roles.

JMCIS System Administrator's Guide– provides information regarding configuration, installation, and troubleshooting for all JMCIS segments, including NIPS, TIMS, NIEWS, etc.

Unified Build Training Manual– a self-paced tutorial on basic system components.

Unified Build User's Guide– describes each menu option within the JMCIS COE, JMCIS Applications, and Printer segments.

Other task-specific applications are described in separate documents.

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CHAPTER 2: SYSTEM ENVIRONMENT

Host computers for the current JMCIS software suite are:

- TAC-3/4 (Tactical Advanced Computer, version 3)
- RSC-1X/2X (Gray Box)
- Sparc 10/20

2.1 HARDWARE COMPONENTS

The software uses one hard disk for the UNIX-based operating system and all core applications. If necessary, the second hard disk is used to load additional segments and to store data elements, such as extra map data.

2.1.1 TAC-3/4 HARDWARE

- HP 9000/7*xx*, with 64–192 MB of RAM
- *at least* one 1.2 GB hard disk drive
- 1.2-2.0 GB DAT drive (required to install the software)
- monitor
- HP keyboard
- HP trackball
- 1–2 graphics boards, each with 1–2 outputs
- two serial ports

Optional

- color large screen display (CLSD)
- floppy disk drive
- cartridge tape drive
- 5 GB, 8 mm Exabyte tape drive
- Sun keyboard and trackball with HP/Sun keyboard interface assembly*
- CD ROM
- EISA audio card (Pro AudioSpectrum or Pro AudioStudio)
- 8 or 16 port multiplexers (MUX) (Danford or Equinox) for Sun keyboards only

*To allow distant remote configurations, standard shipboard installations are delivered with a Sun keyboard and trackball, rather than HP. An HP keyboard is required to install the operating system tape, but the Sun keyboard and trackball are used to install segments and run the system.

2.1.2 RSC GRAY BOX COMPONENTS

- Sun IPX CPU, with 64 MB of RAM
- S-BUS to VME bus interface
- one 1.2 GB hard disk drive (optional if an RSC-2X is connected)
- floppy disk drive
- 10.4-inch monitor (used optionally with a second display)
- Sun-4 compatible keyboard
- 3-button trackball
- DAT drive
  - external (RSC-1X)
  - internal (RSC-2X)
- 1.2 GB hard disk drive
  - one (either 1X or 2X)
  - two (one in each)
- CD ROM (RSC-2X)

2.1.3 SPARC 10/20 HARDWARE

- Sun Sparc10/20 with 64–192 MB of RAM
- *at least* one 1.2 GB hard disk drive
- 1.2-2.0 GB *Sun* DAT drive (required to install the software)
- CD ROM
- monitor
- Sun keyboard
- Sun trackball
- 1–2 graphics boards, each with 1–2 outputs
- two serial ports

Optional

- color large screen display (CLSD)
- floppy disk drive
- cartridge tape drive
- 5 GB, 8 mm Exabyte tape drive

2.2 MULTI-MONITOR CONFIGURATIONS

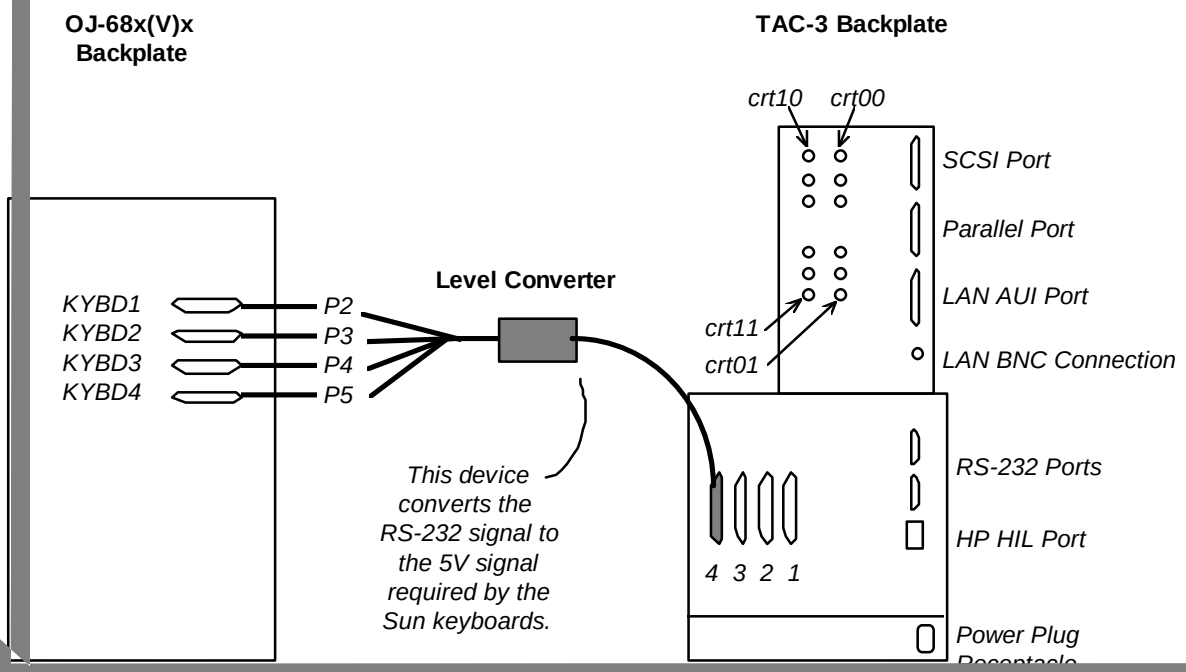
A single, properly equipped TAC-3 CPU can drive any of the following configurations:

- a single-eye console with 1–3 single-eye remote monitors
- a dual-eye console with 1–2 single-eye remote monitors
- a dual-eye console with a dual-eye remote monitor

Keyboards

- If an HP keyboard is used, only a single-eye console with *no* remote monitors may be set up. (The HP keyboard is connected via the HIL port.)
- For multi-monitor configurations, Sun keyboards *must* be used.
- The HP and Sun keyboards should *not* be connected to the CPU at the same time.

Figure 2-1 shows the rear view of a standard TAC-3 CPU. Ports in the multi-monitor connection scheme are indicated.



Single-Eye Console	Remote 1	Remote 2	Remote 3
Monitor: crt00 Keyboard: KYBD4	None	None	None
Monitor: crt00 Keyboard: KYBD1	**Single-eye** Monitor: crt01 Keyboard: KYBD2	None	None
Monitor: crt00 Keyboard: KYBD1	**Single-eye** Monitor: crt01 Keyboard: KYBD2	**Single-eye** Monitor: crt10 Keyboard: KYBD3	None
Monitor: crt00 Keyboard: KYBD1	**Single-eye** Monitor: crt01 Keyboard: KYBD2	**Single-eye** Monitor: crt10 Keyboard: KYBD3	**Single-eye** Monitor: crt11 Keyboard: KYBD4

Dual-Eye Console

Dual-Eye Console	Remote 1	Remote 2
Top Monitor: crt01 Bottom Monitor: crt00 Keyboard: KYBD1	None	None
Top Monitor: crt01 Bottom Monitor: crt00 Keyboard: KYBD1	**Single-eye** Monitor: crt10 Keyboard: KYBD4	None
Top Monitor: crt01 Bottom Monitor: crt00 Keyboard: KYBD1	**Single-eye** Monitor: crt10 Keyboard: KYBD3	**Single-eye** Monitor: crt11 Keyboard: KYBD4
Top Monitor: crt01 Bottom Monitor: crt00 Keyboard: KYBD1	**Dual-eye** Top Monitor: crt11 Bottom Monitor: crt10 Keyboard: KYBD3	None

For potential difficulties the user may encounter in a multi-monitor environment, see *Troubleshooting Multi-monitors* in Chapter 6.

2.3 THE JMCIS OPERATING SYSTEM (OS)

The JMCIS OS is a modified version of the UNIX OS, which accompanies the original hardware.

The JMCIS OS tape contains software relating to four areas:

- The operating system.
- The administration software required for installation, and for system and security administration.
- X Windows software.
- Motif software.

When a change is required in one or more of these areas, a new tape is built and the version number is increased by one. Thus, a change in the JMCIS OS tape may not be– and in fact is usually not– the result of a change to the "operating system."

Notes

CHAPTER 3: OPERATING GUIDELINES

3.1 POWER DOWN

- *Never* power down the system without first executing a shutdown, as described below. Doing so could cause irreparable damage.
- If the system has already been brought down improperly, refer to Chapter 6, *Error Recovery.*

1. Select EXIT from the SYSTEM menu in the main menu bar.
2. Log in with a sysadmin account and password.
3. Select SHUTDOWN SYSTEM from the HARDWARE menu.
4. Wait until the following message appears: "syncing file systems... done. Halted."
5. Turn off the peripherals, including the monitor.
6. Turn off the computer.

3.2 POWER UP

1. Turn on the Uninterruptable Power Supply (UPS) if necessary.
2. Turn on the peripherals, including the monitor.
3. Turn on the computer.
4. Enter assigned login and password at the prompts. The machine name is displayed In the login window.

3.3 DATABASE SIZE LIMITS

TRACKS	***LIMITS***
Platform / Ambiguity	1500
Emitter	1500
Link	1024
Acoustic	100
Unit	1650
SPA-25G	400
RAYCAS	50
SI	450
FCS	100
External	0
Total 6774 (Max 6774)	

Note: The values above represent the defaults for the system. For information on modifying the default, see the TRACK DATABASE RECONFIG option under the Database menu.

OTHER TRACK RANGES	***LIMITS***
Confidence Level of AOU Cross-fix Ellipse	90%
Dynamic Status Board	1 master track / 20 slave tracks
Land Sites	100
Missile Systems / track	10
Radar Systems / track	10
Sonar Systems / track	10
Weapon Systems / track	10
Specific IFF Mode-2 Valued Tracks Can Be Archived	20
Specific NTDS Track Numbers Can Be Archived	20
Track Archive Sequence of Steps	60 seconds
Track Groups	32
Tracks / group	Limited only by disk storage
Track History Reports / track	1,000
Track Symbol Label	26 characters
Tracks JMIE Database Will Send	10

COMMUNICATIONS	***LIMITS***
(V) 6 Queue	50 messages
Addressee (Channel Message Buffer Manager)	1,000 backlog messages
Alert Log	1,000 messages
Incoming Message Log	1,000 messages
Incoming Opnote Log	200 opnotes
Outgoing Message Log	1,000 messages
RAINFORM Messages	1,000 lines
Received Messages Displayed in Status Window	1,000 messages
Report Log	2,000 reports
Saved for Raw Messages	500 lines

MISC	***LIMITS***
Auto-Forwarding, Addresses	500
Broadcast, User-Set Cycle Rate	0–720 minutes
Broadcasts, Active	25
Characters Stored per Screen Name	50
Clipboard, Files Stored on	1,000
Engagement Scenarios	10
Grid Cells, Number of	24 or 48
HULTEC Database	650
IFF/DIs, Nicknames	100
Incoming Message Alert, Addresses	5
Incoming Message Alert, Originators	5
Net Address (DDN)	256
PIM Tracks	100
PIM Track Legs	256
SAR Patterns in SAR Database	20
Satellite Charlie Elements	300
Satvul-Satellites per Category	300
Screen-Kilo Formations	100
Screen-Kilo, Ships per Formation	50
Stored Screen, Briefing Slides	50
Stored Screens, Number of	50
4-Whiskey Formations	100
4-Whiskey, Ships per Formation	50

MAPS	***LIMITS***
Key Sites	1,000
ROTHR Display of RTN on Map	15 characters
Stored Map, Parameter Combinations	500
Stored Maps	20
Zoom Width, Greatest	21,600 NM
Zoom Width, Smallest	0.25 NM
OVERLAYS	
Overlay, Items	100
Overlay, Points	256
Overlay, Polyline Points	256
Overlays, Number of	500

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CHAPTER 4:
SYSTEM ADMINISTRATION UTILITIES

The sysadmin user account accesses the JMCIS system administration and maintenance utilities. These utilities perform functions such as making a backup data tape, restoring data to the system from a backup tape, changing the machine unique ID, and other administrative tasks.

Log in with the sysadmin user account from the GCCS login screen and the system displays a menu bar containing main menu items of the following:

- SYSTEM (Section 4.1)
- HARDWARE (Section 4.2)
- SOFTWARE (Section 4.3)
- DATABASE (Section 4.4)
- NETWORK (Section 4.5)

From these main menus, pull-down menus provide the system administrator with the functions necessary to maintain the system.

4.1 SYSTEM MENU

The System menu provides utilities to assist in controlled power-up and shutdown of the system. The following options are available from the System menu:

Find Launch
To automatically locate the LAUNCH WINDOW on the desktop. (Section 4.1.1)

Stop Program
To kill a running application process. (Section 4.1.2)

Print Screen
To print a hardcopy version of the workstation screen as it currently appears. (Section 4.1.3)

Select Printer
To assign a default printer to the workstation. (Section 4.1.4)

System Status
To check the status of GCCS on the local network. (Section 4.1.5)

Restart

To immediately begin the reboot procedure. (Section 4.1.6)

Power Down

To execute a shutdown command, allowing the computer to be powered off without damaging the operating system. (Section 4.1.7)

Close All

To immediately close all open GCCS windows. (Section 4.1.8)

Logout

To exit the System Administration function and return to the GCCS Login prompt. (Section 4.1.9)

4.1.1 FIND LAUNCH

In GCCS, the LAUNCH window is provided to allow easy access to the installer, xterms, and the printer. The LAUNCH window appears when you login as the system administrator, and may be iconified in the same manner as any GCCS window.

Should you, at some point, iconify or layer the LAUNCH window beneath another window, selecting Find Launch opens the LAUNCH window, layering it over any other windows so it is fully visible.

4.1.2 STOP PROGRAM

The Stop Program option allows you to kill any application process by choosing it from a list of running processes that is displayed in the Stop Program window.

To stop a program:

1. Select Stop Program. The Stop Program window appears.

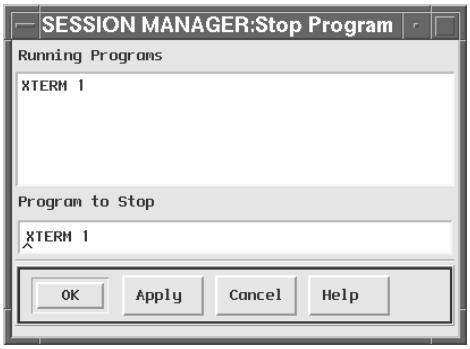

Figure 4-1 Stop Program Window

2. The Running Program: field displays a list of currently active processes. Click on the entry in the Running Program: field that corresponds to the process you wish to stop. The process you selected is now displayed in the Program to Stop: field.
3. Click Apply to apply the deletion to the process. A warning window appears, informing you that this process is destructive and should only be used to kill a hung process.
4. Click OK in the warning window to stop the program and return to the Stop Program window (or click CANCEL to dismiss the window and return to the Stop Program window).
5. Click OK in the Stop Program window to dismiss it (or click CANCEL).

4.1.3 PRINT SCREEN

The Print Screen option provides a method to capture the windows displayed on the workstation monitor and print them to hardcopy on the workstation default printer.

To print a screen:

1. Select Print Screen. The Print Screen window appears.

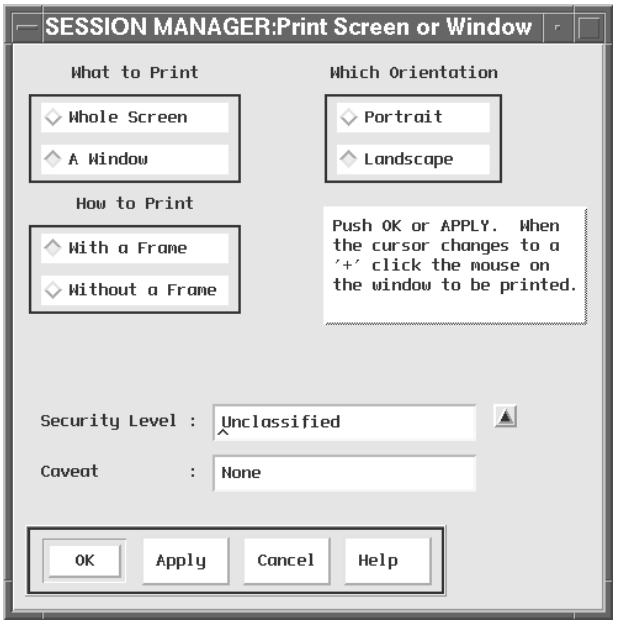

Figure 4-2 Print Screen Window

2. Select the appropriate diamond knob in the What to Print:, Which Orientation:, and How to Print: boxes. The Remarks box below the Which Orientation: box provides any instructions for additional steps you may need to perform in accordance with your selections.

3. Select the appropriate security level by clicking the list box to the right of the Security Level: field and choosing the corresponding entry. This marking will appear as a header and footer on the printed page.
4. Enter any remarks you want to appear on the hardcopy (i.e., a short description, etc.) into the Comment: field.
5. Click OK or Apply to print your selection to the workstation's default printer.

4.1.4 SELECT PRINTER

The Select Printer option allows you to assign a default printer to the workstation.

To select a printer:

1. Select Select Printer. The Select Printer window appears.

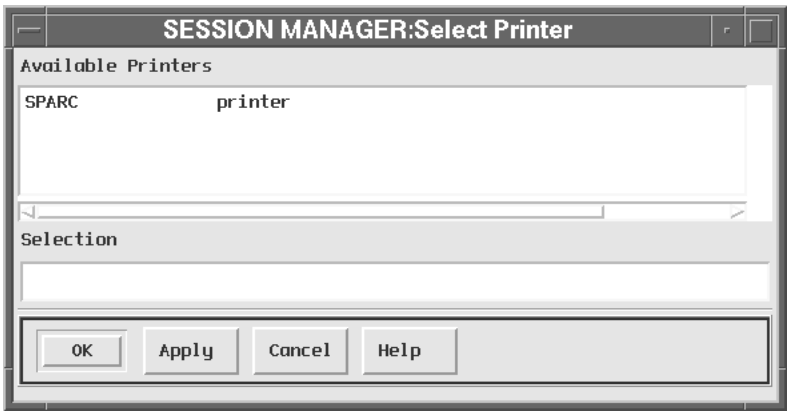

Figure 4-3 Select Printer Window

2. The Available Printers: field displays a list of currently available printers. Click on the entry in the Available Printers: field that corresponds to the printer you wish to assign to the default. The printer you selected is now displayed in the Selection: field.
3. Click Apply to apply the selection.
4. Click OK in the Select Printer window to accept the assignment and dismiss the Select Printer window.

4.1.5 SYSTEM STATUS

The System Status option provides a method to view the current status of GCCS nodes on the local network.

To view the system status:

1. Select System Status. The System Status window appears.

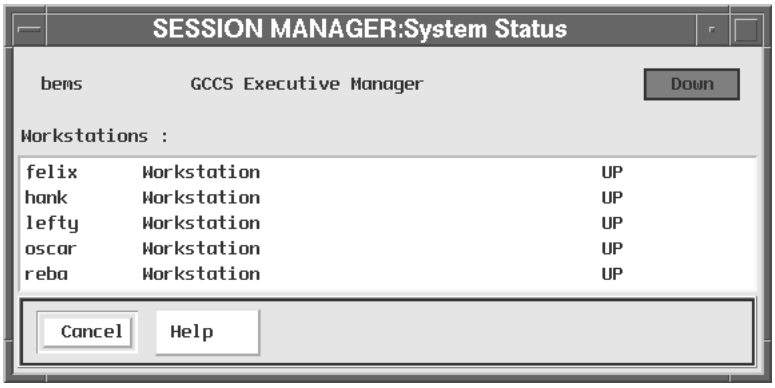

Figure 4-4 System Status Window

2. The System Status window displays a list of known nodes (hosts) on the GCCS and their status (UP or DOWN).
3. Click OK to dismiss the System Status window.

4.1.6 RESTART

The Restart option allows you to reboot the operating system. After selecting RESTART, you are asked to confirm the reboot. Click YES to continue.

The reboot process usually takes about six minutes, during which the screen appears gray and then black. When the process is complete, the Login window appears.

4.1.7 POWER DOWN

It is very important that the system never be powered off using the ON/OFF switch without first executing a shutdown. This could be very harmful to the system. If the system has already been brought down unnaturally, refer to Chapter 6 in this guide.

The power-down sequence is as follows:

1. Login as **`sysadmin`**.
2. Select POWER DOWN from the SYSTEM ADMINISTRATION menu.
3. Wait until this message appears on the system console:

   `"synching file systems… done"`

   `"Halted."`

4. Power down the hardware.

4.1.8 CLOSE ALL

The Close All option closes all open GCCS windows, dismissing them immediately.

4.1.9 LOGOUT

Select the Logout option to exit the SYSADMIN function and return to the GCCS login screen.

4.2 HARDWARE MENU

The Hardware menu provides utilities to assist in the maintenance of a satisfactory software/hardware interface. The Hardware menu presents the following options:

Shutdown System
To shut down the operating system properly, allowing the computer to be powered off. (Section 4.2.1)

Reboot System
To reboot the operating system with a disk check. (Section 4.2.2)

Disk Manager
To display available mounted and unmounted devices and file systems, such as sd0a, sd1h, and /home/Nauticus/data/mnt. (Section 4.2.3)

Config Printer
To configure a printer for a particular machine and port, and define remote access for the printer on the LAN. (Section 4.2.4)

4.2.1 SHUTDOWN SYSTEM

Use the SHUTDOWN SYSTEM option to shut down the operating system properly, allowing the computer to be powered off.

4.2.2 REBOOT SYSTEM

Use the REBOOT SYSTEM option to reboot the operating system with a disk check.

4.2.3 DISK MANAGER

The Disk Manager option provides information on the available mounted and unmounted devices and file systems on a workstation, such as sd0a, sd1h, and /home/Nauticus/data/mnt.

- A *mounted* device can be accessed for read and write operations.
- An *unmounted* device has disk space that is potentially available for such operations. An unmounted device must be mounted to a particular directory before its available space can be used.

To view this data, select the Disk Manager option from the Hardware menu. The Disk Manager window appears.

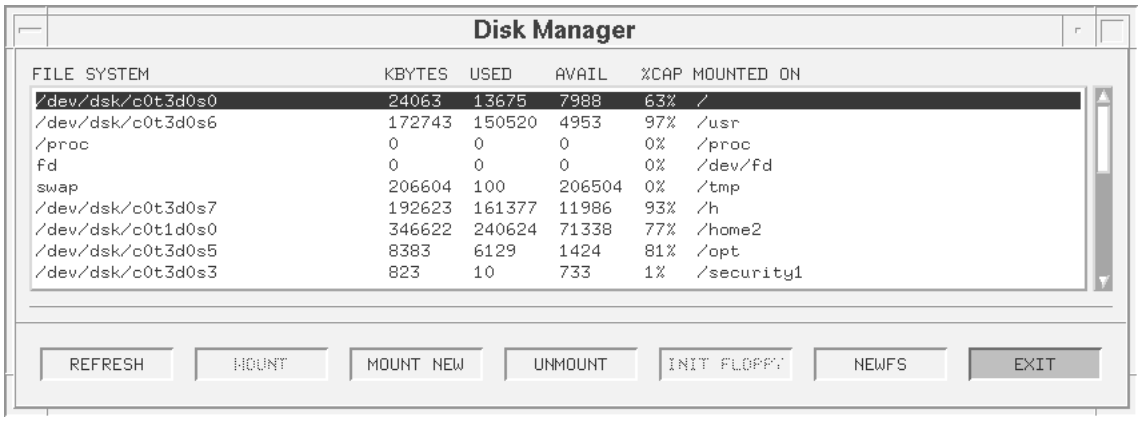

Figure 4-5 Disk Manager Window

To mount a device:

Note: Problems may arise if two devices are mounted to the same directory. To prevent this, ensure that no duplicate references to the same directory exist in the MOUNTED ON column.

1. Select the device name to mount and then click MOUNT. (Note that a pop-up menu is available with SELECT ALL and UNSELECT ALL options.)
2. Respond to the prompt, `Do you need a permanent mount?` Click OK for a permanent mount.
3. Click EXIT to exit the Disk Manager window.

To unmount a device:

Select the device name to unmount and then click UNMOUNT.

To mount a new device:

Note: Problems may arise if two devices are mounted to the same directory. To prevent this, ensure that no duplicate references to the same directory exist in the MOUNTED ON column.

1. Click MOUNT NEW. The MOUNT FILE SYSTEM window appears.

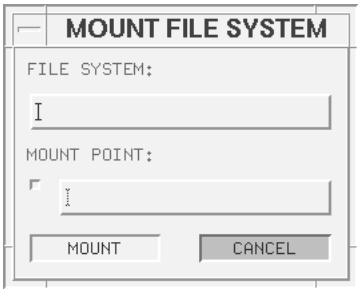

Figure 4-6 MOUNT FILE SYSTEM Window

2. In the FILE SYSTEM field, enter the pathname of the remote file system that you wish to mount on your local machine.
3. In the MOUNT POINT field, enter the pathname of the directory where you would like the remote file system mounted. You may choose from a list of directories on your machine by typing in the directory name or by clicking the knob to the left of the MOUNT POINT field and selecting the desired directory from the list presented in the CHOOSE MOUNT POINT window.
4. Click MOUNT to mount the file system to the designated mount point directory on your machine.

Note: The other buttons in the Disk Manager window are not currently functional. They will be activated and documented in a future release of the software.

4.2.4 CONFIG PRINTER

The CONFIG PRINTER option configures a printer for a particular machine and port, and defines remote access for the printer on the LAN.

To view the printer configuration:

Select Config Printer. The PRINTER SETUP window appears.

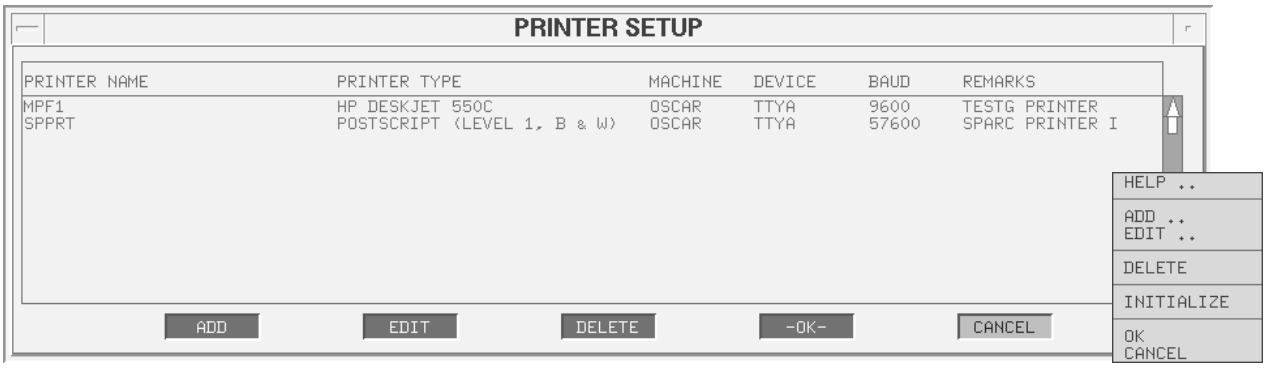

Figure 4-7 PRINTER SETUP Window

When the PRINTER SETUP window is *first* opened, no printers are available on the network. If a list of printer names appears in the window, some other printer configuration was previously implemented.

Important considerations for configuring printers:

- A list of the printers supported by GCCS is available.
- You may define which workstations have access to each printer.
- After making any changes to the printer setup– add, edit, or delete– you must initialize to set the printer configuration. See the example below for detailed information on the INITIALIZE procedure.

The ADD, EDIT, DELETE, OK, and CANCEL buttons operate in the standard manner.

To add a new printer:

1. In the PRINTER SETUP window, click ADD. The ADD NEW PRINTER window appears.

Figure 4-8 ADD NEW PRINTER Window

2. Click in the PRINTER NAME field and enter the name of the printer.
3. Click the list box next to the PRINTER TYPE: field to display the list of supported printers.
4. Click the appropriate entry in the list to display it in the PRINTER TYPE field.
5. Click the list box next to the HOST MACHINE field for a list of available hosts on the LAN Double-click the entry to select the list entry which corresponds with the hostname of the machine where the printer is physically attached to the network. The selected hostname appears in the HOST MACHINE field.
6. Click the list box next to the DEVICE field for a list of available ports on the workstation. Double-click the entry to select the list entry which corresponds with the port you wish to use for the printer. The selected device appears in the DEVICE field.
7. Enter additional information, such as the printer's physical location, into the REMARKS field.
8. Click the checkbox beside the USE EXISTING LOCAL UNIX PRINTER field to place an X in the checkbox.

Note: The USE EXISTING LOCAL UNIX PRINTER setting should be used if the printer being enabled already exists in UNIX (e.g., a SPARCPrinter that has been created with the NeWSprint software). Checking this box will prevent UB from modifying the UNIX printer, and will simply allow UB to print to it. If you do not check this box before initializing the UB printer, any UB printer which uses a duplicate of a UNIX printer name will delete the UNIX printer and re-initialized it as a UB printer.

9. Click checkboxes in the AUTHORIZED REMOTE ACCESS box to enable remote printing from other machines on the LAN. Place an X in the checkbox corresponding to each machine with permission to use the printer.
10. Click OK to return to the PRINTER SETUP window with the new data. (Clicking CANCEL would ignore the new printer data.)
11. Select INITIALIZE from the pop-up menu for the PRINTER SETUP window to update the applicable JMCIS printer tables and set the printer configuration.

    The INITIALIZE option must be performed individually on every workstation after you add, edit, or delete printers from the network configuration. The new configuration will not be available to any workstation which has not performed this step.

Note: The initialization step must be performed before the PRINTER SETUP window is dismissed. Failure to initialize will result in the loss of the new configuration information when the PRINTER SETUP window is closed.

12. Click OK at the "Save and Initialize These Printer Choices" prompt. When the initialize process is complete, you are returned to the PRINTER SETUP window.

To edit a printer entry:

1. In the PRINTER SETUP window, select the printer you wish to edit and click EDIT. The EDIT PRINTER window appears.
2. The EDIT PRINTER window fields function like those of the ADD PRINTER window. See the description above.

To delete a printer:

In the PRINTER SETUP window, select the printer entry you wish to delete and click DELETE. The printer entry is deleted.

4.3 SOFTWARE MENU

The Software menu provides utilities to assist in the maintenance and upgrade of the software loaded on a workstation as well as its connection to the LAN. The Software menu provides the following options:

Segment Installer
To load software segment from DAT tape. (Section 4.3.1)

Installation Server
To "load" segments for remote installation across the network. (Section 4.3.2)

Archive Net Server
To archive network information on software installed on the comms server. (Section 4.3.3)

Restore Net Server
To restore network data to comms server. (Section 4.3.4)

Enable GenBroadcast
To activate a GEN Broadcast. (Section 4.3.5)

Disable GenBroadcast

To disable a GEN Broadcast. (Section 4.3.6)

The following is not a Software menu option, but deals with the networking and software configuration on a workstation.

Adding a New NIS+ Client (Solaris)

To set up an NIS+ client workstation. (Section 4.3.7)

4.3.1 SEGMENT INSTALLER

All GCCS software is packaged in modules called software segments. These segments are loaded using the Segment Installer tool. The Segment Installer tool is a Graphical User Interface (GUI) that does the following:

- Identifies which applications/segments are loaded on your system.
- Identifies which applications/segments are available on a tape or on a Segment Installation Server.
- Provides the capability to install and/or de-install applications/segments on the system.

The Segment Installer installs software in the /h file system. When this file system is approximately 80 percent full, the Segment Installer will install software in /home1, followed by /home2, /home3,. . ., /home99. The 80 percent constraint can be overridden on systems with limited amounts of disk space by using the Disk Space Override feature of the Segment Installer.

In most cases, the software installation process is automatic, requiring no further actions on the part of the installer.

All segments are contained on 4mm or 8mm tapes provided by DISA.

To install GCCS applications:

1. At the GCCS Workstation Console Login: prompt, enter sysadmin and press [Return].
2. At the Password: prompt, enter the sysadmin password (default vinson) and press [Return].
3. Agree to the provisions set forth in the Consent to Monitoring screen by pressing [Return]. The SYSTEM ADMINISTRATOR screen appears.
4. Insert the tape containing the segment into the DAT drive and wait until the control panel LEDs stop blinking.
5. From the Software pull-down menu, select Segment Installer. The System Processing Warning window appears, displaying any sessions that are

currently active in the system. In order to use the Segment Installer option, you must terminate all active sessions. Please advise other users who may be affected.

6. To terminate all active sessions, click OK. The SEGMENT INSTALLER window appears.

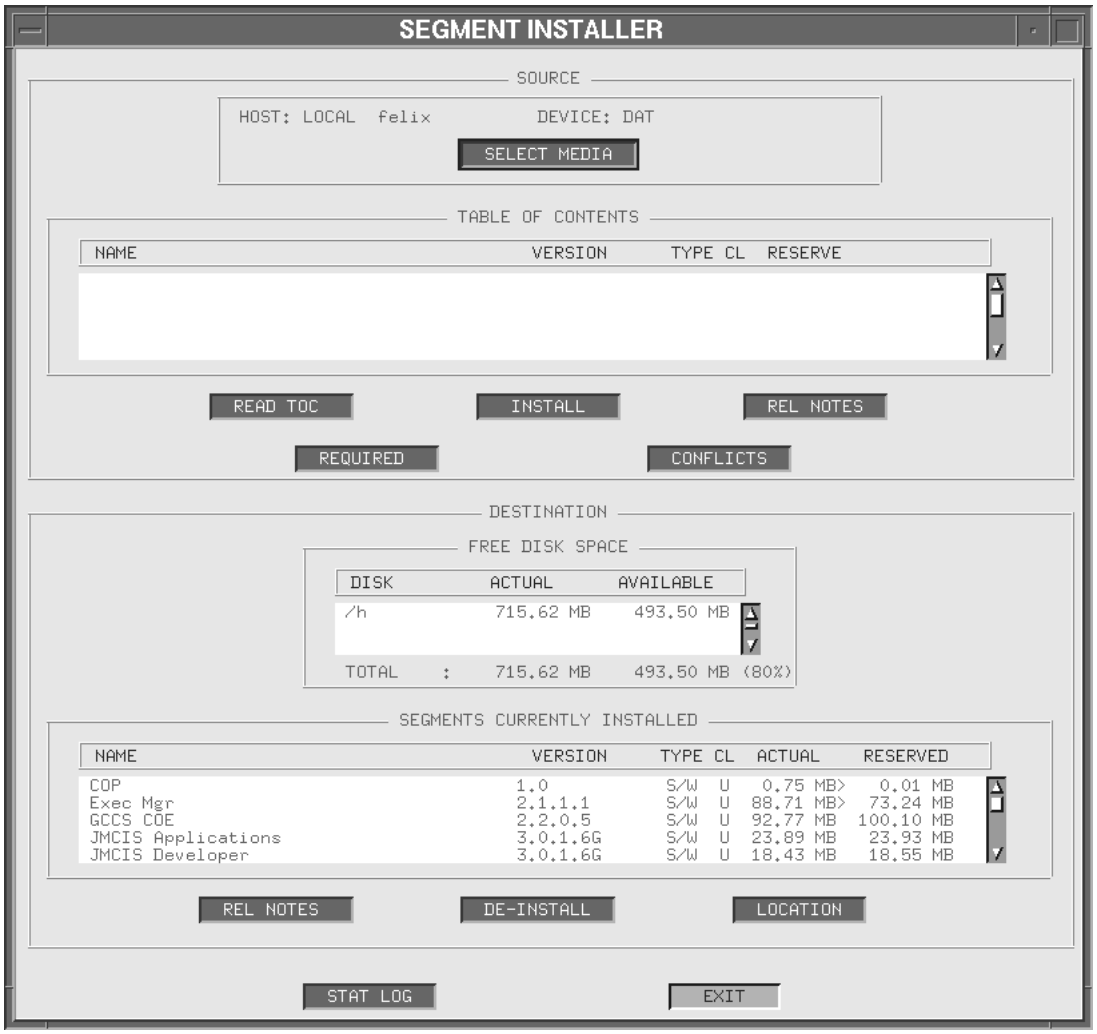

Figure 4-9 SEGMENT INSTALLER Window

If loading from a default device (i.e., local DAT drive at device 0 [HP device 3]), proceed directly to Step 13. If loading from a remote or non-standard device, complete Steps 7 through 12 before continuing to Step 13.

7. Click SELECT MEDIA in the upper portion of the SOURCE box in the SEGMENT INSTALLER window. The SELECT MEDIA window appears.

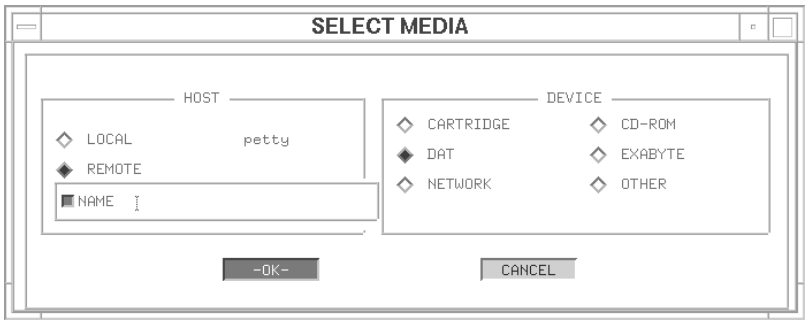

Figure 4-10 SELECT MEDIA Window

8. In the DEVICE box, select the media type (i.e., DAT or EXABYTE). If you wish to manually enter the device file, use the OTHER selection and enter the name of the no-rewind device.

Note: On Solaris, ensure you use the Berkeley device designation (e.g., /dev/rmt/1mbn, *not* /dev/rmt/1mn).

9. Of you are installing from the selected device on a remote machine, in the SELECT MEDIA window, click REMOTE. A Name field appears just below REMOTE.
10. Click the button next to the Name field to display a list of hosts available on the local network.
11. From the list of available hosts, select the hostname of the remote hosts where the tape drive is located.
12. Click OK to return to the SEGMENT INSTALLER window.
13. Click Read TOC. The items that appear in the TABLE OF CONTENTS portion of the SEGMENT INSTALLER window are the names of software segments contained on the tape.
14. From the list, select the segment you wish to install and click INSTALL. A window appears, displaying an hourglass, indicating that the system is busy installing the selected segment(s).
15. When the segment installation is complete, a warning window appears stating Selected Segment(s) Installed Successfully.
16. Click the EXIT button to dismiss this warning window.
17. To view the release notes for a segment, highlight the desired segment from the SEGMENTS CURRENTLY INSTALLED box, and click REL NOTES. The RELEASE NOTES window appears, displaying the release notes for that segment (if any).

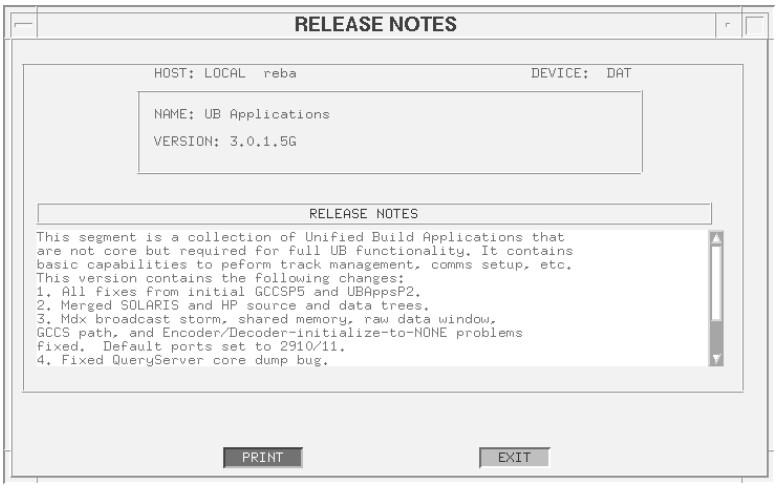

Figure 4-11 RELEASE NOTES Window

The RELEASE NOTES window displays the name of the highlighted segment, the version number, and the actual release notes.

a. To print the contents of the RELEASE NOTES window, click PRINT.

b. To exit the RELEASE NOTES window and return to the SEGMENT INSTALLER window, click EXIT.

18. To remove a segment from the system, click DE-INSTALL in the DESTINATION portion of the SEGMENT INSTALLER window. (Note: The segment is removed without the appearance of a warning window.)

19. To view the location of a segment on the disk, highlight a segment and click LOCATION in the DESTINATION portion of the SEGMENT INSTALLER window. The SEGMENT LOCATIONS window appears.

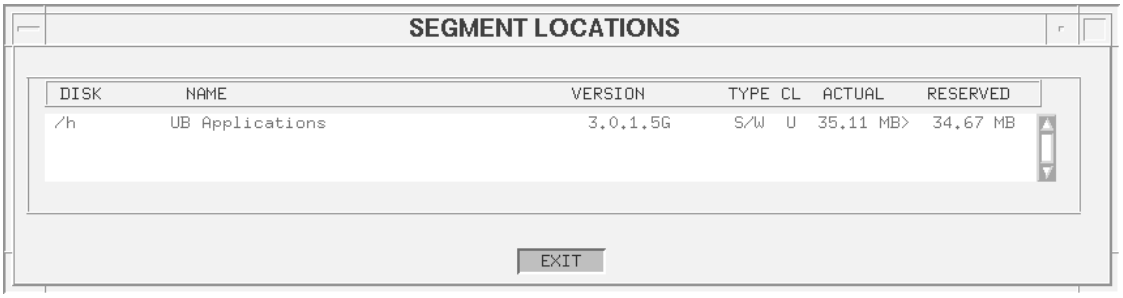

Figure 4-12 SEGMENT LOCATIONS Window

The SEGMENT LOCATIONS window tells the section of the disk where the segment is located, the type of software, the clearance of the segment, the estimated disk space needed to load the segment, and the actual disk space that was used to load the segment. Click EXIT to exit the SEGMENT LOCATIONS window and return to the SEGMENT INSTALLER window.

20. In the Segment Installer window, click EXIT to dismiss the window.

4.3.2 INSTALLATION SERVER

Use this option to "load" segments. Loading a machine "stores the software" on the machine, but *does not* enable the software to run. Each machine on the network must then be installed.

Load the software from a tape to the hard disk of one or more machines.

- A list of installation server machines is automatically created on the TDBM master.
- The list is updated each time software is loaded with this option.

Install the software using the SEGMENT INSTALLER option (described in Section 4.3.1).

To "backup" the installation server list for network installations, use the ARCHIVE NET SERVER DATA and RESTORE NET SERVER DATA options.

The INSTALLATION SERVER window is similar to the SEGMENT INSTALLER window, with the following exceptions:

- The INSTALL button is replaced by the LOAD button.
- The DE-INSTALL button is replaced by the REMOVE BUTTON.
- The SEGMENTS CURRENTLY INSTALLED list is replaced by SEGMENTS CURRENTLY LOADED ON THIS NETWORK SERVER.

4.3.3 ARCHIVE NET SERVER

The comms server maintains a list of software loaded on each machine designated as an installation server. This list is used to install software with a device specification of NETWORK. The list is updated each time new segments are loaded on network servers with the INSTALLATION SERVER option.

If the comms server goes down, a NETWORK installation is not possible because the list is inaccessible. Use ARCHIVE NET SERVER DATA on any machine that has been designated an installation server to ensure NETWORK installations will still be possible. This option copies the software list from jots1 to the machine where the option is invoked.

Note: Neither the comms server nor the designated backup comms server should be used as an installation server. If the backup comms processor has segments loaded on it, those segments will not be found when the machine is renamed because the network server list says the segments are on another system.

Also see JMCIS Installer, Installation Server, Change Machine ID (Alternate Comms Processor), and Restore Net Server Data in the Unified Build User's Guide.

4.3.4 RESTORE NET SERVER

If a backup comms processor is renamed and brought up, the list of software loaded on the network must be restored before NETWORK installations are possible. Use RESTORE NET SERVER DATA on the machine(s) where the list was copied (using ARCHIVE NET SERVER DATA) prior to the failure.

Also see JMCIS Installer, Installation Server, Change Machine ID (Alternate Comms Processor), and Archive Net Server Data in this Unified Build User's Guide.

4.3.5 ENABLE GENBROADCAST

To enable GEN Broadcast as a broadcast option for GCCS users, you must select Enable GenBroadcast from the Software menu. GEN Broadcast can *only* be enabled from the Command and Control Processor (CP) machine (typically the EM Server and TDBM Server machine).

4.3.6 DISABLE GENBROADCAST

To disable GEN Broadcast as a broadcast option for GCCS users, you must select Disable GenBroadcast from the Software menu. GEN Broadcast can *only* be disabled from the Command and Control Processor (CP) machine (typically the EM Server and TDBM Server machine). (Note: If a GCCS user has configured a broadcast as a type GEN broadcast, you will not be able to disable GEN Broadcast using this option until after you delete the existing broadcast.)

4.3.7 ADDING A NEW NIS+ CLIENT (SOLARIS ONLY)

If additional NIS+ client must be added after the installation procedure has been completed, you may modify the hosts file to add the NIS+ client machines.

1. Log in as root (default password vinson) to the NIS+ master server.

Note: NIS+ must be running in order to log in.

2. Perform the following steps to add the client to the NIS+ host table:
   a. Enter # cd /h/EM/nis_files and press [Return].
   b. Enter vi hosts and press [Return].

c. Enter G and press [Return]. (This command takes you to last line of file.)

d. Enter o and press [Return]. (This command adds a new line.)

e. Enter <IPnumber> <CLIENT1> and press [Return].

f. Press [Esc] and enter dd. (This command exits the insert mode and deletes the last blank line.)

g. Enter :wq and press [Return].

h. Enter # /usr/lib/nis/nispopulate -F hosts and press [Return].

The following text appears:

```
NIS+ Domainname: {DOMAINNAME}

Directory Path: (current directory)

Is this information correct? (Y or N)
```

i. Enter y and press [Return].

3. Log in as root to the client.

4. Perform the following steps to add the {NIS+ MASTER} to */etc/hosts*, if required:

   a. Enter # vi /etc/hosts and press [Return].

   b. Enter G and press [Return]. (This command takes you to last line in file.)

   c. Enter o and press [Return]. (This command adds a new line.)

   d. Enter <IPaddress> <MASTER> and press [Return].

   e. Press [Esc] and enter dd. Press [Return].

   f. Enter :wq! and press [Return].

5. Perform the following steps to remove any old NIS+ information (if it exists):

   a. Enter # cp /etc/nsswitch.files /etc/nsswitch.conf and press [Return].

   b. Enter # rm /etc/.rootkey and press [Return].

   c. Enter rm -rf /var/nis/* and press [Return].

   d. Enter rm -rf /etc/defaultdomain and press [Return].

6. Perform the following steps to initialize the client:

a. Enter # /usr/lib/nis/nisclient -i -d <NIS DOMAINNAME> -h <NIS MASTER SERVER> and press [Return]. The following text appears:

Enter server <servers name> IP address:

b. Enter your IP address and press [Return]. The following text appears:

Please enter the network password that your administrator gave you.

c. Enter your password and press [Return]. The following text appears:

Please enter the secman RPC password for root:

d. Enter nisplus and press [Return].

Please enter the login password for root:

e. Enter the root password and press [Return].

7. Perform the following steps to assign the client to the NIS+ domain:

Note: Ignore error messages concerning /etc/defaultdomain.

a. Enter # domainname <NIS DOMAINNAME> and press [Return].

b. Enter # domainname > /etc/defaultdomain and press [Return].

8. Perform the following steps to check the client's /etc/nsswitch.conf file:

a. Enter cp /h/EM/systools/nsswitch.EM /etc/nsswitch.conf and press [Return].

b. Enter # cd /etc and press [Return].

c. Enter # vi nsswitch.conf and press [Return].

Ensure the entries for passwd, group, and hosts look like the following:

passwd: nisplus files

group: nisplus files

hosts: files dns nisplus [NOTFOUND=return,]

Comment out any other lines with passwd, group, or hosts.

9. Perform the following steps to reboot the machine.

a. Enter # cd / and press [Return].

b. Enter #

4.4 DATABASE MENU

The Database menu provides utilities to assist in the maintenance of the databases which are created and used in GCCS/JMCIS and to provide the options for shutdown and startup of the JMCIS function within GCCS. The Database menu provides the following options:

Archive JMCIS Data
To archive current JMCIS data files to tape. (Section 4.4.1)

Restore JMCIS Data
To copy the current backup data files from tape to the JMCIS system. (Section 4.4.2)

Clean Data Files
To delete data files from the system. (Section 4.4.3)

Track Database Config
To reconfigure the allotment of tracks in the system. (Section 4.4.4)

4.4.1 ARCHIVE JMCIS DATA

The ARCHIVE JMCIS DATA option archives current JMCIS data files to tape. You may back up some or all of the data entered into the system, such as tracks, overlays, and PIM tracks.

Warning: Be careful not to save information over important data already stored on tapes. Any tape can be overwritten during a backup if the tape is not *write protected.* To write protect a tape, open the plastic door on the back edge of the tape cartridge. Never overwrite the GCCS Operating System or JMCIS Application Software Segment tapes supplied with the system. They should be kept in a secure space so you can reinstall the software in the event of a fatal system crash.

To perform the archive, use the following procedure:

1. Insert a blank tape into the tape drive.
2. Select ARCHIVE JMCIS DATA. The tape will start to rewind. Rewinding the tape can take several minutes. When the tape is positioned, the Archive To Tape window appears.

Note: The data files displayed in the window depend on the version of software installed; your window may vary from the illustration shown below.

Figure 4-13 Archive To Tape Window

3. Click some or all of the checkboxes for the types of data to be archived. A pop-up menu is available with SELECT ALL and UNSELECT ALL options.

   If you choose the ALL checkbox when creating a backup tape, the only option available when the tape is restored is ALL. However, if you select all the data files by clicking the individual checkboxes (or using the pop-up SELECT ALL), you will later be able to "pick and choose" which data files to restore.

4. Click OK to begin the backup process. When the process is complete, the tape is automatically rewound.

5. Remove the tape. Place a label on the tape and write JMCIS DATA BACKUP, with the date, version, and classification. Check with the designated authority for classification level required.

4.4.2 RESTORE JMCIS DATA

The RESTORE JMCIS DATA option copies the current backup data files from tape to the JMCIS system. This backup tape must be one created using the ARCHIVE JMCIS DATA option.

Warning: Track data, message logs, and AEN table information must be restored to the comms processor. Restoring these types of data to any other machine while the comms processor is running could cause serious problems. However, other data types, such as overlays or PIM tracks, can be restored to any machine on the LAN.

Restored data is not merged with existing data. Existing data is completely replaced by the data on the tape.

To restore data files:

1. Insert the data file backup tape into tape drive.

2. Select RESTORE JMCIS DATA. A Restore From Tape window similar to the figure below appears.

Note: The data files displayed in the window depend on the version of software installed; your window may vary from the illustration shown below.

Figure 4-14 Restore From Tape Window

The Restore From Tape window displays the DTG stamp made at the time the data was backed up. Only those types of data stored on the tape appear as choices in the window.

3. Click any or all of the checkboxes for the types of data to restore to the system from the backup tape. A pop-up menu is available with SELECT ALL and UNSELECT ALL options.
4. Click OK to begin the restore process.

   When the restore process is complete, the tape rewinds automatically.

4.4.3 CLEAN DATA FILES

The CLEAN DATA FILES option enables you to delete datafiles from the system. Different groups of datafiles can be deleted, including all existing track information. This option is used mainly to clear bad message data from the message logs. This option is also very useful if the display seems corrupted. Cleaning the local MAP TOGGLES will often correct this problem.

To clean data files:

1. From the DATABASE menu, select CLEAN DATA FILES. The CLEAN DATA FILES window appears.

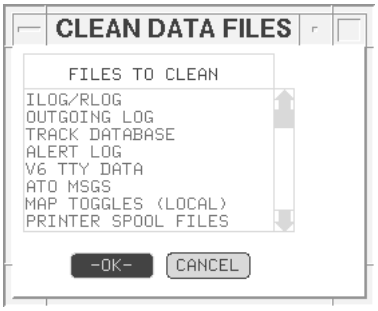

Figure 4-15 CLEAN DATA FILES Window

The CLEAN DATA FILES window displays a list of files that may be erased.

2. Select the files you want from the list and click OK to erase those files. (To close the window without erasing any files, click CANCEL.)

   After cleaning the data files, those files that have been erased will no longer appear in the system. For example, if you erased the TRACK DATABASE files, all of the tracks will be removed from the tactical display (except OWNSHIP) when the system is started again. Selecting PRINTER SPOOL FILES removes all print requests queued in the system.

4.4.4 TRACK DATABASE RECONFIG

The TRACK DATABASE RECONFIG option enables you to configure the allocation of track types across the system-wide maximum of 6774. This maximum is comprised of all track types. For instance, if the site wanted to zero-out the RAYCASV, SCI, and SPA-25G tracks and use the newly freed-up counts to increase the number of Link tracks, this can now be done.

To reconfigure the track database, from the DATABASE menu, select TRACK DATABASE RECONFIG. The TRACK CONFIGURATION window appears.

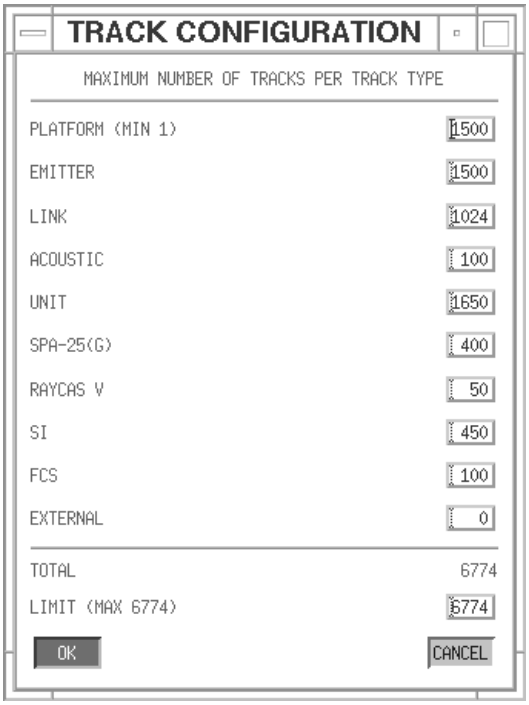

Figure 4-16 TRACK CONFIGURATION Window

In the upper portion of the TRACK CONFIGURATION window, different track-types available in GCCS are displayed on the left side of the window. The corresponding value set for the maximum number of tracks allocated to a track type is displayed on the right side of the window. The track types listed refer to the tracks as defined in the *Unified Build 3.0.1.6G User's Guide*, Tracks chapter.

In the lower portion of the TRACK CONFIGURATION window, the TOTAL field displays the total number of tracks which have been allocated. This total is dynamically updated each time one of the track type values is modified.

The LIMIT (MAX) field displays the maximum number of tracks the system is enabled to display. The maximum value that may be set here is 6,774, but a lesser number may be set limit the number of tracks supported by the system in order to improve system performance, etc.

WARNING: Avoid casual changes of the track distributions.

If an individual site has changed its track maximums, it can easily be maintaining more tracks of a certain category than another site can hold. If these sites are linked via Broadcast, MDX, or COP segment, serious system overloading can occur. The option is provided with the intent that track counts may be adjusted at all GCCS sites WORLDWIDE through central DISA coordination. Local site adjustments are discouraged and should be treated with utmost care

To modify a track type default setting:

1. Select the field corresponding to the track type you wish to modify.
2. Using the backspace key, clear the field and enter the desired value.
3. Select and modify any additional track type value fields.

Note: The TOTAL field dynamically updates as you modify the values in the individual track type fields. The system will not allow you to exceed the system-wide limit of 6,774 tracks (if the LIMIT field value is set lower, it will not allow you to exceed that limit. Therefore, if you are close to the limit (or system maximum), in order to add tracks to one track type field, you must first delete the tracks from another track type field.

4. Click OK to apply your changes. A warning window appears, explaining the implications of reconfiguring your system and asking for confirmation of the reconfiguration:

Figure 4-17 (Reconfigure) WARNING Window

5. Click Cancel to cancel the reconfigure and return to the TRACK CONFIGURATION window.

– OR–

Click Reconfig to confirm the reconfiguration. A warning window appears, informing you that you must reboot your system:

Figure 4-18 (Reboot) WARNING Window

6. Reboot the TDBM Master and the client machines on your system.

WARNING: You must reboot the TDBM Master and *all* clients on the entire local LAN in order to ensure that all client machines are updated with the new track database configuration.

Although the track configuraton file is global, each client must configure its own local shared memory based on this file. Failure to reboot the TDBM Master and *all* clients may cause serious errors to occur in track processing and display.

4.5 NETWORK MENU

The Network menu provides utilities to manage the general configuration of individual workstations as well as the local LAN and to manage the interface between the workstations and the LAN. The Network menu provides the following options:

Change Machine ID
To change the name of a machine on a network. (Section 4.5.1)

Set System Time
To set the time on the workstation to match that of the comms server. (Section 4.5.2)

Set WAN UID
To set the wide-area network (WAN) unique ID (UID). (Section 4.5.3)

Set WAN DDN Timeout
To allow the system administrator to set a time-out period for DDN network operations. (Section 4.5.4)

Config DDN Host Table
To create a Data Defense Network (DDN) host table to describe the entire WAN. (Section 4.5.5)

Set NIPS TDBM Host
To designate a workstation where a user can perform Naval Intelligence Processing System (NIPS) track updates. (Section 4.5.6)

Edit Local Hosts
To add or delete a list of hosts that can be accessed from a user's machine. (Section 4.5.7)

System Configuration
To set the list of available hosts for the local machine. (Section 4.5.8)

4.5.1 CHANGE MACHINE ID

The CHANGE MACHINE UNIQUE ID option changes the name of a machine on a network.

WARNING: The machine will reboot when you use this utility. If circumstances prevent you from rebooting the machine, do not use this option.

Each workstation on an Ethernet must have its own unique network address. This address is set when the system is installed and is associated with a symbolic name. The network does not permit two machines with the same name. Select CHANGE MACHINE UNIQUE ID to view the Change Machine ID window:

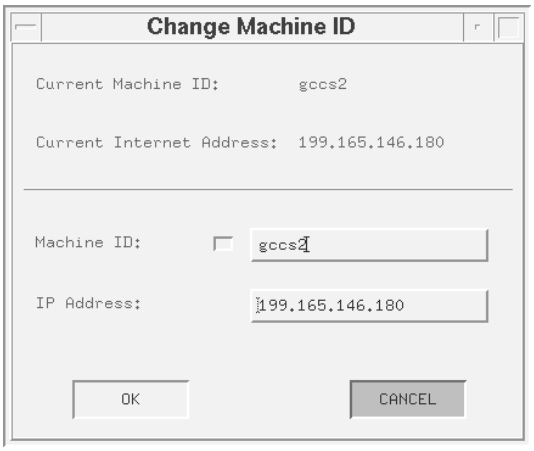

Figure 4-19 Change Machine ID Window

1. Click the up or down arrow to scroll through the list of machine names.
2. After selecting the machine name, click OK to complete the change. (If the name is already used on the LAN, an error message prompts for another name.)
3. After the name is accepted, a warning window alerts you that the system will reboot.
4. Click OK to reboot the machine or CANCEL to prevent the reboot. The reboot is required to change the name (ID) of the machine.
5. After the reboot process is complete, you are returned to the Login window.

4.5.2 SET SYSTEM TIME

The JMCIS comms processor must have the correct ZULU time or track reports may fail to process. JMCIS will not process track reports "in the future" (i.e., with time/pos lines ahead of the JMCIS clock). To avoid failed track reports, set the JMCIS system time as follows:

1. From the NETWORK menu, select the SET SYSTEM TIME option. The SYSTEM TIME window appears.

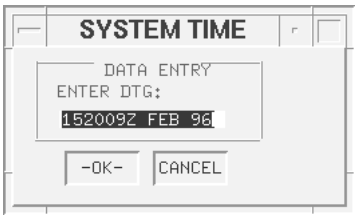

Figure 4-20 SYSTEM TIME Window

2. Enter the correct ZULU time in DDHHMMZ MON YR format.
3. Click OK to set the JMCIS system time.

4.5.3 SET WAN UID

A unique ID (UID) is critical to the integrity of the Data Defense Network's (DDN) contact database. Each wide-area network (WAN) site is assigned a unique address. This address and the corresponding unique name of each system on the network are used by the system to create a UID for each contact that enters the system. Note that the UID is displayed in the track edit window in a non-edit field, and therefore it cannot be altered by the operator.

The UID is formatted as XXX, where XXX is a three character WAN DDN UID, or station identifier, assigned to your particular JMCIS system. The three-character ID marks tracks added to the DDN from your system.

The UID code you provide using this window ensures that tracks added to the database from two different terminals on the WAN are uniquely identified *even if they are added at precisely the same time.* While the time/date stamps of the two tracks may be identical, the first three characters of the UID are different since the contacts were added at different stations. Thus, the two parts of the UID work in conjunction to uniquely identify every track added to the track database.

Each track is assigned a UID. However, the UID may or may not be used depending on your system's operating mode. For example, if UID CORRELATION MODE is selected in the EDIT FOTC CONFIGURATION window, any contact database information received over the DDN is processed according to its WAN DDN UID before any other type of correlation is done. This first pass through the database looks solely for exact UID matches to the incoming track. UID matches are updated directly regardless of any other considerations such as attribute mismatches or geofeasibility concerns. The track's history is updated and, in the event of mismatched attribute data, existing attribute information is replaced by that of the incoming track. If no match is found in the track database, normal attribute correlation is then performed.

In general, ashore installations operate in FOTC Non-participant or in UID Correlation mode, while afloat sites select from FOTC Coordinator, FOTC Participant, or FOTC Non-participant modes.

Warning: For Ashore Sites Only

Using UID Correlation mode without a valid WAN DDN UID can cause serious database problems. Do not select UID Correlation mode before you have entered a valid WAN DDN UID.

From the NETWORK menu, select the SET WAN DDN UID option to set your system's WAN DDN UID. The SET WAN UID window appears.

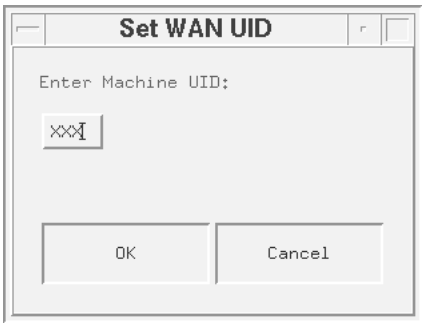

Figure 4-21 Set WAN UID Window

Enter your assigned UID into the highlighted field, then press [Return]. (Or, if you prefer, enter the UID and click OK.) If you decide not to change the default UID, click CANCEL.

4.5.4 SET WAN DDN TIMEOUT

This option allows the system administrator to set a timeout period for DDN network operations. The timeout period begins after the DDN channel is started.

If a requested connection to a remote host fails, or if the receipt timeout period expires, a DDN STATUS UNCERTAIN warning is put in the alert log. (If the DDN TIMEOUT knob in the SCREEN ALERT FILTER window is selected, a window also appears on the tactical display.)

Select the SET WAN DDN TIMEOUT INTERVAL option to set your system timeout. The DDN TIMEOUT window appears:

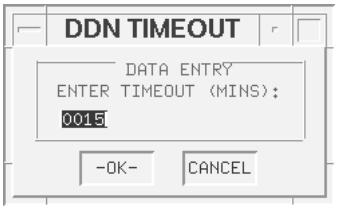

Figure 4-22 DDN TIMEOUT Window

Timeout values must be between 1 and 3600 minutes. The default value is 15 minutes (0015). Enter the desired timeout length (in minutes) into the highlighted field, and click OK. If you decide not to change the default value, click CANCEL.

4.5.5 CONFIG DDN HOST TABLE

Warning: This option is for use only by hub sites.

If you are a hub site and you need to reload the JMCIS software for any reason, make sure to restore the data for this option using your tape backup of the DDN host table after the basic installation has been completed. If you do not have a tape backup of the DDN host table, follow the steps listed below to recreate the DDN host table.

The Data Defense Network (DDN) host table describes the entire wide-area network (WAN). A "generic" host table is established in the operating system during installation. The system administrator must edit a copy of the generic table so that each site with which you intend to communicate given a UHID. Most sites communicate with only a few other sites, so unedited host table entries should be deleted.

Note: Sometimes a site is designated to be a backup for a centralized communications site. The backup site must be prepared to quickly go on-line in case the system at the primary site, or hub, goes down. The CONFIGURE DDN HOST TABLE option provides a means to store two separate host tables, allowing you to quickly go on-line as a hub.

If your site serves as a backup communications hub, you should set up the two host tables as follows:

- Primary: lists the sites you need for normal communications.
- Alternate: lists the sites used by the hub that you are backing up.

The easiest way to configure these tables is to set up the alternate table *first*, then set up the primary table, which is usually a subset of the sites listed in the alternate table.

Once the tables have been set up, it is easy to switch between the two. The current table appears as part of the NET HOSTNAME TABLE window title. If the window title reads NET HOSTNAME TABLE–ALTERNATE, select PRIMARY from the window's pop-up menu to view the sites you use under normal operating circumstances. If the window title reads NET HOSTNAME TABLE–PRIMARY, select ALTERNATE from the window's pop-up menu to see the entries used by the hub you are backing up.

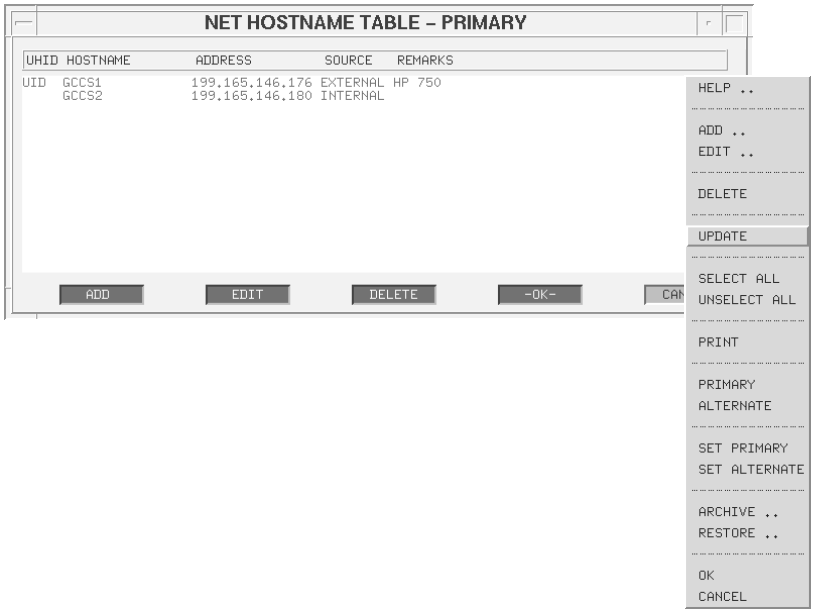

Figure 4-23 NET HOSTNAME TABLE– PRIMARY Window, with pop-up menu

The following steps describe how to set up the DDN host table.

1. Select CONFIGURE DDN HOST TABLE from the SYSTEM ADMINISTRATION window.
2. Select UPDATE from the pop-up window to read a copy of the host table from the operating system. The entire file is read in from the operating system.

3. If your site serves as backup for a hub site, select SET ALTERNATE from the pop-up menu. *If your site is not a hub backup*, skip to Step 4.
4. Select the first site in the default list with which you will routinely communicate.
5. Click EDIT to bring up the EDIT HOSTNAME window. Fill in the site's UHID, hostname, address, and any desired remarks in the appropriate fields.
6. Note that the default for each site is *internal*. If the site is external, make sure to click the checkbox so it appears empty. An empty checkbox means that the site is *external*.
7. Click OK.
8. Repeat Step 4 through Step 7 for each of the remaining sites with which you communicate.
9. Choose the SELECT ALL option from the pop-up menu.
10. Deselect all the sites you just edited; they appear at the top of the list.
11. Click DELETE to remove all the highlighted sites since they have not been assigned a UID.

Note: Perform Step 12 through Step 15 only if your site is a hub backup. Otherwise, skip to Step 16.

12. Select SET PRIMARY from the CONFIGURE DDN HOST TABLE window pop-up menu.
13. Highlight and delete any sites that you will not communicate with under normal operating conditions.
14. If you need to add any sites to the primary list, click ADD. Enter the site's UHID, hostname, address, and any desired remarks in the appropriate fields. If the site is external, make sure to click the checkbox so it appears empty.
15. When the list contains all sites you will communicate with under normal operating conditions, select SET PRIMARY from the pop-up menu.
16. Archive the host table to the clipboard, then make a tape backup of the host table data. *If your site serves as a hub backup, make tape backups of both the primary and alternate host tables.* Store the backup tape in a safe place so that you can recover quickly in the event your host tables become corrupted.

    DDN, in general:

    - Click ADD to add a new site to the DDN hostname table.

- Click EDIT to edit the UHID, hostname, address, remarks, or internal/external flag of an existing site.
- Click DELETE to remove an existing site from the list.
- Click CANCEL to close the NET HOSTNAME TABLE window without saving your changes.
- Click OK to store the new configuration.

4.5.6 SET NIPS TDBM HOST

Use this option to designate the workstation where a user can perform Naval Intelligence Processing System (NIPS) track updates.

- The CP (usually gccs1) should *not* be a NIPS Tdbm host.
- UB tracks can be associated with (or disassociated from) NIPS tracks.
- When updates are received on associated tracks, the NIPS Tdbm automatically updates the NIPS tactical tables.

To access this window: NETWORK menu : SET NIPS TDBM HOST option : NIPS TDBM HOST window (Figure 5-18).

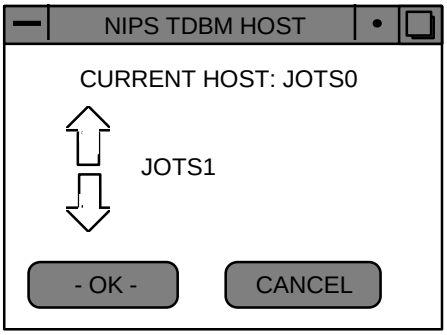

Figure 4-24 NIPS Tdbm Host Window

1. Click on the arrows until the workstation connected to the NIPS database appears in the window.
2. Click OK to select the host workstation, or click CANCEL to discard the change.

4.5.7 EDIT LOCAL HOSTS

This option lists the machines that can be accessed from a user's machine. Use this option to:

- Add or delete machines from the list

- Modify machine information, such as name, IP address, or aliases.

Important considerations for modifying host information such as creating user-defined machine names:

- Change information (names, IP addresses, and aliases) *after* all machines are installed, but *before* the system is used.
- Make changes *first* on the CP for the LAN.
- All changes must be repeated *exactly the same* on each LAN machine– defining the same information, in the same order, on each machine.

To modify information, complete the following tasks on each machine.

To access this window: NETWORK pull-down menu **:** EDIT LOCAL HOST option **:** EDIT HOSTS window (Figure 4-21).

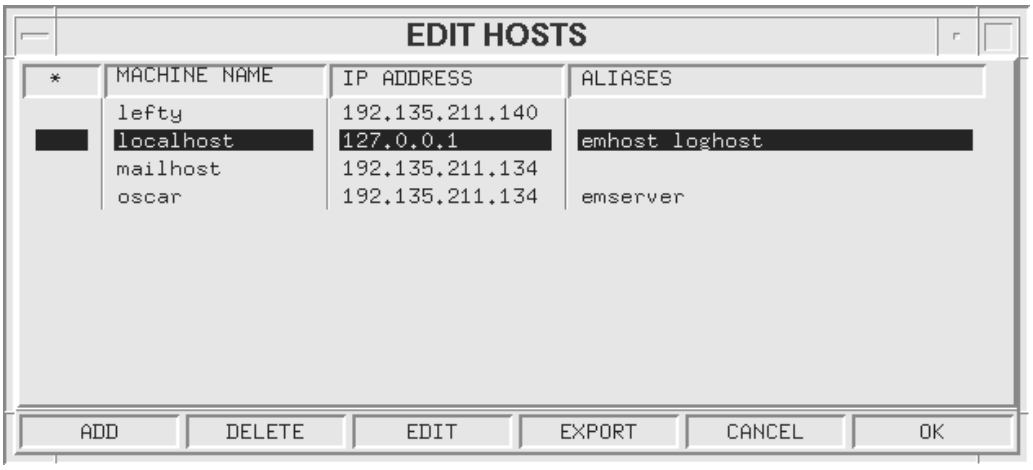

Figure 4-25 Edit Hosts Window

About the EDIT HOST Window:

Two steps are required to add, edit, or delete a machine.

1. After completing the selected action (add, delete, or edit), the machine remains in the EDIT HOSTS window labeled with A (add), M (modify), or D (delete), in the * column. The machines will continue to have this designation until such time as you exit the window. If you access the window again, the A, M, or D designations are removed.
2. Click OK to accept the changes to the machine. Click CANCEL to discard the changes.

EDIT HOSTS Window Buttons:

ADD– a machine to the LAN. (Described in *Add a Machine*.)

DELETE– a machine from the LAN.

1. Highlight a machine in the list.
2. Click DELETE.
3. Click YES in the warning window to confirm the delete, or NO to cancel.

EDIT– a machine name.

1. Highlight one machine name and click EDIT to open the EDIT MACHINE window.
2. The EDIT MACHINE window functions the same as the ADD MACHINE window. (Described in *Add a Machine*.)

EXPORT– machine information to other workstations on the LAN. (Not currently implemented.)

CANCEL– close the window without saving changes.

OK– close the window and save changes.

EDIT LOCAL HOST Window Fields

*****

A (add), D (delete), or M (modify) indicate pending changes made to the machine. T indicates a trusted machine.

A trusted machine can be accessed from another machine on the same LAN. For example, a trusted machine can be used to access a tape drive for a remote installation if your local machine does not have a tape drive attached to it.

MACHINE NAME

Name of the machine. This can be system-defined (gccs1, gccs2, etc.) or user-defined.

IP ADDRESS

Unique Internet protocol address.

ALIASES

List of other names by which a machine is also known.

4.5.7.1 Add a Machine

Use this option to add a machine to the LAN.

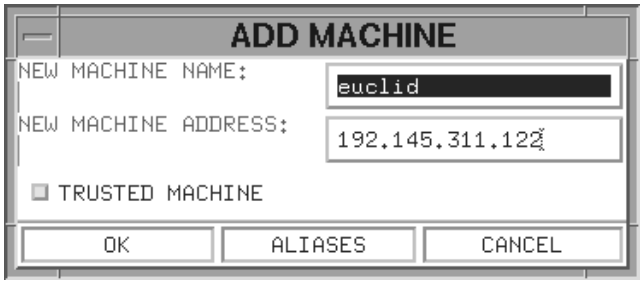

Figure 4-26 Add Machine Window

1. From the EDIT HOSTS window, click ADD to open ADD MACHINE window (Figure 4-22).
2. Enter the machine name in the NEW MACHINE NAME field.
3. Enter the machine IP address in the NEW MACHINE ADDRESS field.
4. Toggle TRUSTED MACHINE checkbox ON to define the new machine as a trusted machine.
5. To add or delete aliases for a machine:
   - Click ALIASES to open the ALIASES window.
   - ADD or DELETE one or more aliases. (Allowable characters are the same as for MACHINE NAME.)
   - Press RETURN to accept a new alias.
   - Click OK to close the ALIASES window and save changes.
6. Click OK to mark the machine as an addition to the list of available machines on the LAN, or click CANCEL to discard changes.

4.5.8 SYSTEM CONFIGURATION

In order for a local workstation running GCCS software to be fully operational within the LAN, a list of hosts in the LAN must be configured on the local machine. The SysCon window provides an interface to set the host names in the resource files that are required to run GCCS software.

To view the current SysCon window, select System Configuration from the Network menu. The SysCon window appears.

Figure 4-27 SysCon Window

Two types of hosts may be set using the SysCon window: Full hosts and Printer hosts. Full hosts are other hosts on the network, including the administrative, broadcast, and pcm hosts. Printer hosts are print servers or printer clients for the various printers that may be enabled from the workstation. A Full host may also be used as a printer server. The Full hosts defined in this function are provided as hosts for various functions in GCCS, including available MACHINE options on various communications interfaces.

The SysCon window initially displays a generic listing of 30 potential full hosts and 5 printer hosts in a Hosts box on one side of the window (defaults to jots1 through jots30 and milan 1 through milan 5). Note that the first entry in this list of hosts is non-editable and reflects your workstation's TDBM Master entry, set by entering the TDBM Master hostname in the TDBM Master field to the right of the Hosts box.

To the right of the Hosts box in the SysCon window, several fields allow you to define specific hosts which provide specific services and networking functions in conjunction with your workstation. The Local Hostname field is a non-editable field that displays your workstation's hostname.

Warning: When *moving* a TDBM Master from one machine to another on a functioning system (i.e., *after* initial installation), you must take care never to have more than one TDBM Master operating simultaneously. Should this happen, it could cause large data loss, as two masters would be competing over use of the same global data. To avoid this condition, ***ensure that you reconfigure the existing TDBM Master before you reconfigure the new TDBM master*** (i.e., if Machine A is the old (current) TDBM Master, and Machine B is the new TDBM Master, first make Machine A a slave to Machine B, and then make Machine B the TDBM Master.

The TDBM Master: field allows you to set the TDBM Master hostname. This field also determines the setting for the Full Host #1 in the Hosts box. Several other

fields allow you to define other server hosts (broadcast, pcm, etc.) related to the workstation.

Note: On GCCS networks, the 5 printer host (milan) fields should always be left empty.

To set the hosts available to the workstation:

1. In the Hosts box on the left side of the SysCon window, click the toggle box beside the host entry you wish to change. Note that when the toggle box is activated (yellow), the host is designated as a Full host; and when the toggle box is deactivated (empty), it is designated as a Printer host (and the label name changes from Full Host to Printer Host).
2. Click the name field next to the appropriate toggle box. The field will become active and is now editable. Enter the name of the host.

Note: The TDBM Master host is entered as Full Host #1. Any other hosts on the local network should be entered as subsequent hosts (Full Host #2 through Full Host # X).

3. Click OK to save the changes you have made to the Hosts box.

Note: Whenever OK is clicked, the SysCon window saves the changes made up to this point and closes. In order to further edit the window, you must restart the window from the Network menu. If you choose, you may make multiple changes to the window per session without clicking OK.

To delete a host entry:

1. Select the host to be deleted and clear the corresponding host name field.
2. Click OK. The SysCon window closes, saving the changes. Because the system will not maintain an “empty” host entry, when you reopen the SysCon window, the entry that was left empty will be eliminated from the system.

The Hosts box displays the list of hosts that are available on the LAN. A total of 30 Full host entries are available, but more may be added, if required.

To add a host entry:

1. In the Hosts box, click NEW. A new entry appears at the bottom of the scroll box.
2. Set the new host as described previously in this section.

Note: When the 31st (or later) Full host is added to the list displayed in the Hosts box and OK is clicked, a warning window appears, informing you that the system may not recognize more than 30 full hosts. This limitation is based upon your local machine's capabilities. If your machine is capable of supporting additional hosts, then clicking SAVE ANYWAY in the warning window saves the additional host(s) and dismisses the warning window. If your machine is not capable of supporting the additional host(s), clicking FIX IT NOW returns you to the SysCon window, where you may modify the host listing to comply with the machine limitation.

When all necessary hosts have been defined in the Hosts box, you must define which hosts serve specific network/server functions on the LAN.

To assign specific host roles:

1. Verify the hostname in the Local Hostname: field. This should be your workstation's hostname.
2. In the TDBM Master: field, enter the TDBM Server hostname for your workstation.
3. Enter the appropriate hostname in the following fields:

   admin qs

   prt wdbm

Note: Typically, in the GCCS environment, both the TDBM server and TDBM clients should have the TDBM server hostname in each of the above fields. However, to account for diverse configuration capabilities, any hostname may be entered in these fields.

4. Click OK to save the changes you have made to this portion of the window and dismiss the SysCon window.

Notes

Notes